AMENDMENTS TO CLAIMS

1-22. (Canceled)

23. (Currently amended) [[The]] A compound sheath superconducting wire ~~of claim 21,~~ comprising:

a metal base wire member with a Vickers hardness of at least 50 at room temperature, wherein the metal base wire member includes iron,

a plurality of tubular-shaped metal cladding layers having a superconductor material coaxially provided within the tubular-shaped metal cladding layers, wherein each of the metal cladding layers has an electric residence of 7 μΩcm or less at room temperature, each of the tubular shaped metal cladding layers being arranged to be provided within the metal base wire member in parallel with each other along a longitudinal direction of the metal base wire member prior to a drawing step to form the compound sheath superconducting wire, and

an intermediate layer coaxially provided outside the tubular-shaped metal cladding layers, wherein the intermediate layer is electrically and mechanically unified metallurgically with the metal base member and the tubular-shaped metal cladding layers in a unitary block such that a gap is not formed between the metal base wire member and the tubular-shaped metal cladding layers by a drawing step to form the compound sheath superconducting wire, the intermediate layer as a brazing material at least containing a metal selected from a group including copper, silver, gold, palladium, aluminum, silicon, indium, tin, zinc, iron, lead, nickel, manganese and boron, and wherein the intermediate layer is a tin alloy.

24. (Currently amended) [[The]] A compound sheath superconducting wire ~~of claim 22,~~ comprising:

a metal base wire member with an electric resistance of 7 μΩcm or less at room temperature,

a plurality of tubular-shaped metal cladding layers having a superconductor material coaxially provided within the tubular-shaped metal cladding layers, wherein each of the metal

cladding layers has a Vickers hardness of at least 50 at room temperature, each of the tubular-shaped metal cladding layers being arranged to be provided within the metal base wire member in parallel with each other along the longitudinal direction of the metal base wire member prior to a drawing step to form the compound sheath superconducting wire, wherein the tubular-shaped metal cladding layers include iron, and

an intermediate layer coaxially provided outside the tubular-shaped metal cladding layers, wherein the intermediate layer is electrically and mechanically unified metallurgically with the metal base member and the tubular-shaped metal cladding layers in a unitary block such that a gap is not formed between the metal base wire member and the tubular-shaped metal cladding layers by a drawing step to form the compound sheath superconducting wire, the intermediate layer as a brazing material at least containing a metal selected from a group including copper, silver, gold, palladium, aluminum, silicon, indium, tin, zinc, iron, lead, nickel, manganese and boron, and wherein the intermediate layer is a tin alloy.

25. (Previously presented) A superconducting wire comprising:

at least one magnesium boride wire member;

a tubular shaped iron alloy surrounding said at least one magnesium boride wire member;

a copper portion surrounding said at least one magnesium boride wire member and said tubular shaped iron alloy prior to a drawing step to form the superconducting wire; and

an intermediate layer between said tubular shaped iron alloy and said copper portion, wherein said intermediate layer is a junction auxiliary material that is electrically and mechanically unified metallurgically with said tubular shaped iron alloy and copper portion in a unitary structure such that a gap is not formed between the tubular shaped iron alloy and the copper portion by a drawing step to form the superconducting wire, and wherein said intermediate layer is constructed from a tin alloy.

26. (Previously presented) The superconducting wire of claim 25, wherein said tubular shaped iron alloy directly contacts said at least one magnesium boride wire member.

27. (Previously presented) A superconducting wire comprising:

at least one magnesium boride wire member;

a tubular shaped copper portion surrounding said at least one magnesium boride wire member;

an iron alloy surrounding said at least one magnesium boride wire member and said tubular shaped copper portion prior to a drawing step to form the superconducting wire; and

an intermediate layer between said iron alloy and said copper portion, wherein said intermediate layer is a junction auxiliary material that is electrically and mechanically unified metallurgically with said iron alloy and said copper portion in a unitary structure such that a gap is not formed between the iron alloy and the copper portion by a drawing step to form the superconducting wire, and wherein said intermediate layer is constructed from a tin alloy.

28. (Previously presented) The superconducting wire of claim 27, wherein said tubular shaped copper portion directly contacts said at least one magnesium boride wire member.